

REMARKS

Claims 1-20 are pending in this application. By this Amendment, Applicants amend Claims 1, 5, 11-13 and 15.

The drawings were objected to because Figs. 5 and 10 were not designated as --PRIOR ART--. Applicants have amended Figs. 5 and 10 to be properly designated as --PRIOR ART-- in the accompanying Request for Approval of Drawing Corrections. Accordingly, Applicants respectfully request reconsideration and withdrawal of this objection.

Claims 1-20 were rejected under 35 U.S.C. § 112, second paragraph, for allegedly being indefinite. Applicants have amended claims 1, 5, 11-13 and 15 to correct the informalities noted by the Examiner. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

Claims 1, 2, 6-12 and 16-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicants' Admitted Prior Art (AAPA) in view of Moorhead (U.S. 5,935,722). Claims 3, 4, 13 and 14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicants' Admitted Prior Art (AAPA) in view of Moorhead (U.S. 5,935,722), and further in view of Nishimoto (U.S. 6,096,966). And claims 5 and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicants' Admitted Prior Art (AAPA) in view of Moorhead (U.S. 5,935,722), and further in view of Shirahata (U.S. 6,005,468). Applicants respectfully traverse these rejections.

Claim 1 has been amended to recite:

"A method of firing magnetic cores comprising the steps of:
providing a plurality of flattened-ring compact bodies made of a magnetic material and having flattened through holes;
attaching a powder made of an organic material to an outer surface of the plurality of flattened-ring compact bodies;
arranging the plurality of flattened-ring compact bodies adjacently so that axes of the flattened through-holes are vertically arranged; and
firing the flattened-ring compact bodies while the powder is interposed between the adjacent flattened-ring compact bodies."
(Emphasis added)

Claim 11 recites features that are similar to the features recited in claim 1, including the emphasized features.

The Examiner acknowledged that AAPA fails to teach or suggest a step of attaching a powder to a surface of the flattened-ring compact bodies. However, the Examiner alleged that Moorhead teaches a processing of making a laminated composite of magnetic alloy and ceramic powder including the step of attaching an inorganic powder on a laminated composite structure and a step of sintering the laminated composite structure to form a strong composite structure, and thus concludes that it would have been obvious to modify a flattened-ring compact body of AAPA by a step of attaching an inorganic metallic powder on the surface of the composite structure as taught by Moorhead. Applicants respectfully disagree.

In contrast to the present claimed invention, Moorhead is directed to a method of manufacturing high performance magnets in which a laminated composite structure is produced by alternately layering inorganic metal powder and inorganic bonding media powder of ceramic, glass and glass-ceramic. The bonding media powder 12 is interposed between layers of the metal powder 10 such that the outer layers are defined by the metal powder 10. Thus, Moorhead fails to teach or suggest any method of firing a magnetic core, and certainly fails to teach or suggest a method of firing magnetic cores including the steps recited in claims 1 and 11 of the present application.

Particularly, Moorhead fails to teach or suggest the steps of "providing a plurality of flattened-ring compact bodies **made of a magnetic material** and having flattened through holes" and "attaching a powder made of an organic material to an outer surface of the plurality of flattened-ring compact bodies". In fact, Moorhead fails to teach or suggest any organic powder attached to a body made of magnetic material, and certainly fails to teach or suggest an organic powder attached to an outer surface of a magnetic body.

Additionally, since Moorhead fails to teach or suggest any method for firing magnetic cores, but rather merely teaches a method of making high performance magnets, Applicants respectfully submit that Moorhead is non-analogous art, and thus, that there would have been absolutely no motivation to combine the teachings of the Moorhead with AAPA. It is impermissible within the framework of § 103 to pick and choose from any one reference only so much of it as will support a given position to the

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exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. In re Wesslau, 353 F.2d 238, 241, 147 USPQ 391 (CCPA 1965).

Accordingly, Applicants respectfully submit that AAPA and Moorhead, taken individually or in combination, fail to teach or suggest the unique combination and arrangement of elements recited in claims 1 and 11 of the present application.

Nishimoto was relied upon merely to teach ring type sintered cores that are arranged horizontally, and clearly fails to teach or suggest an organic powder attached to an outer surface of a compact body, let alone the unique combination of method steps recited in claims 1 and 11.

Shirahata was relied upon merely to teach a bar attached to each side of a ring compact body, and clearly fails to teach or suggest an organic powder attached to an outer surface of a compact body, let alone the unique combination of method steps recited in claims 1 and 11.

Accordingly, Applicants respectfully submit that Nishimoto and Shirahata fails to cure the deficiencies of AAPA and Moorhead described above.

In view of the foregoing remarks, Applicants respectfully submit that claims 1 and 11 are allowable. Claims 2-10 and 12-20 depend upon claims 1 and 11, respectively, and are therefore allowable for at least the reasons that claims 1 and 11 are allowable.

In view of the foregoing Remarks, Applicants respectfully submit that this application is in condition for allowance. Favorable consideration and prompt allowance are respectfully solicited.

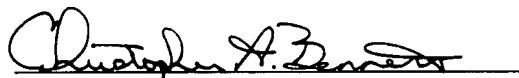
To the extent necessary, Applicants petition the Commissioner for a One-month extension of time, extending to April 26, 2002, the period for response to the Office Action dated December 26, 2001.

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The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

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VERSION WITH MARKINGS SHOWING CHANGES MADE

1. A method of firing magnetic cores comprising the steps of:
providing a plurality of flattened-ring compact bodies made of a magnetic material and having flattened through holes;
attaching a powder made of an organic material to [the] an outer surface of the plurality of flattened-ring compact bodies;
arranging the plurality of flattened-ring compact bodies adjacently so that [the] axes of the flattened through-holes are vertically arranged; and
firing the flattened-ring compact bodies while the powder is interposed between the adjacent flattened-ring compact bodies.

5. The method according to claim [1] 3, wherein after the plurality of flattened-ring compact bodies are stacked on each other in a vertical direction, the plurality of flattened-ring compact bodies are arranged so that the axes of the flattened through-holes are vertically arranged while maintaining the stacked state and a bar is attached to each of [the] a pair of sides of the stacked flattened-ring compact bodies.

11. A method of firing magnetic cores comprising the steps of:
providing a plurality of thin compact bodies made of a magnetic material and having flattened through holes;
attaching a powder made of an organic powder to [the] an outer surface of the plurality of thin compact bodies;
vertically arranging the plurality of thin compact bodies adjacently; and
firing the thin compact bodies while the powder is interposed between the adjacent thin compact bodies.

12. The method according to claim 11, wherein the step of arranging includes arranging the plurality of [flattened-ring] thin compact bodies in a plurality of rows that are adjacent to each other.

13. The method according to claim 11, wherein before the step of attaching powder, the plurality of [flattened-ring] thin compact bodies are arranged so that [the] axes of the flattened-through holes are horizontally arranged.

15. The method according to claim [11] 14, wherein after the plurality of [flattened-ring] thin compact bodies are stacked on each other in a vertical stacking direction, the plurality of [flattened-ring] thin compact bodies are arranged so that [the] axes of the flattened through-holes are vertically arranged while maintaining the stacked state and a bar is attached to each of [the] a pair of sides of the stacked [flattened ring] thin compact bodies.